

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Olivier J. A. Schueller et al.  
Serial No.: 10/824,331  
Confirmation No.: 5408  
Filed: April 14, 2004  
For: OPTICAL MODULATOR/DETECTOR BASED ON  
RECONFIGURABLE DIFFRACTION GRATING  
Examiner: C. A. Simone  
Art Unit: 1794

## Certificate of Electronic Filing Under 37 CFR 1.8

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4).

Dated: July 12, 2009

Signature:

PRE-APPEAL BRIEF REQUEST FOR REVIEW

In response to the Advisory Action mailed May 29, 2009, Applicants hereby request Panel Review. Claims 52 and 54-56 are pending for examination. The Applicants refer the Panel to the Applicants' "Amendment in Response to Final Office Action," filed May 21, 2009 for the text of the pending claims.

I. Statement of Clear Errors in Examiner's Rejection and Examiner's Omission of Essential Element Needed for Establishment of Prima Facie Anticipation under 35 U.S.C. §102(b)

Claims 52 and 54-56 have been rejected as being anticipated by U.S. Patent No. 5,443,890 to Ohman (hereinafter "Ohman"). For the convenience of the panel, the text of independent claim 52 as currently pending is copied below for reference. The legal and factual errors are closely intertwined in the Examiner's rejections, and will therefore be addressed together for clarity.

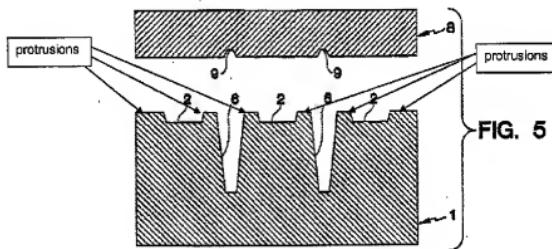
52. An article comprising:  
a polymeric component having a surface defining a plurality of protrusions and a plurality of intervening indentations, portions of the surface defining the indentations being of material essentially identical to that of portions of the surface defining the protrusions, with the

protrusions bonded to a surface of a second component in the absence of auxiliary adhesive thereby defining a liquid-impermeable seal therebetween, wherein the liquid-impermeable seal comprises siloxane bonds and wherein the plurality of intervening indentations are not bonded to the surface of the second component.

The Examiner has made an error of fact and law in maintaining the anticipation rejection because the reference cited by the Examiner clearly does not teach or suggest each and every limitation of claim 52. Specifically, claim 52 requires a surface defining a plurality of protrusions and a plurality of intervening indentations, where the portions of the surface defining the indentations and protrusions are made of essentially the same material and the protrusions are bonded to a surface of a second component in the absence of auxiliary adhesive to form a liquid-impermeable seal.

Under any reasonable interpretation of the claim or the Ohman reference, this arrangement is clearly not taught or suggested by Ohman. Indeed, for the reasons explained in more detail below, under any reasonable interpretation of Ohman, it is clear that the arrangement of Ohman does not teach or suggest that protrusions made of essentially the same material as indented portions of the surface of the article do, or are even capable of, forming a liquid impermeable seal with another component upon contact. To the contrary, Ohman explicitly teaches the need for separate sealing strips formed of a dissimilar material to achieve a similar objective.

The Examiner points to Figure 5 of Ohman as disclosing an article with a plurality of protrusions, which are labeled with arrows in the Office Action dated April 29, 2008 as shown below (See page 5).



The Examiner then points to Figures 6 and 7 of Ohman, noting that sealing strips 5 are placed in grooves 6 of polymeric component 1, and the second component 8 is pressed against component 1 to compress sealing strips 5 as shown in Figure 7 of Ohman, copied below.

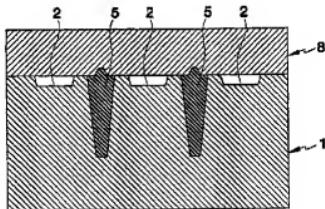


FIG. 7

The Examiner contends, without further support, that components 1 and 8 are held together by sealing strips 5, thereby forming a bond. According to the Examiner, the sealing strips are "bonding" component 1 to component 8, such that the protrusions of component 1 are "bonded to" the surface of component 8.

The contention that the protrusions of the upper surface of component 1, as opposed to materially dissimilar sealing strips 5, are "sealed" to component 8 is clearly erroneous. While Ohman does mention that components 8 and 1 are "pressed against each other to compress the sealing strips 5 and bring the opposed plate surfaces in mutual contact," such an arrangement does not explicitly or inherently satisfy the "protrusions [formed of essentially identical material as indentions of the surface] bonded to a surface of a second component" limitation of claim 52. One of ordinary skill in the art would understand the term "bond" to require more than just incidental contact between two surfaces. Ohman itself explicitly states that, in order to achieve mutual contact between the surfaces of components 8 and 1 to form a seal, they must be "pressed against each other to compress the sealing strips" (Col. 6, lines 29-38, emphasis added). The very requirement that the sealing strips be compressed to achieve contact between the protrusions and the surface of component 8 indicates that it is the sealing strips that effect any seal between components and not the protrusions of component 1. Indeed, if the protrusions of the surface were "bonded" to component 8 in the way contended by the Examiner, the sealing

strips of Ohman would be an unnecessary redundancy, rather than a required element to form an effective seal as taught by Ohman itself.

Moreover, nowhere does the Examiner even suggest that the further limitation of claim 52 that the contact between the protrusion and the second component establish a liquid-impermeable seal is taught by Ohman. To the contrary, the Examiner concedes that it is sealing strips 5 that provide the leakage proof sealing means, citing Col. 2, lines 20-25 of Ohman (See page 3 of Advisory Action; page 4 of Office Action of January 5, 2009). There is simply no indication anywhere in Ohman that the contact between the protrusions indicated by arrows in Figure 5 above and the surface of component 8 would or could form a liquid-impermeable seal, and the Examiner has not suggested otherwise.

Finally, the further limitation of claim 52 that the protrusions be bonded to a surface of a second component in the absence of auxiliary adhesive is not taught or suggested by Ohman. The Examiner argues: "sealing strips 5 are bonding component 1 to component 8. Accordingly, the protrusions of component 1 are being bonded to the surface of component 8." (See page 2 of Advisory Action of May 29, 2009 and page 4 of Office Action of January 5, 2009) The term "auxiliary adhesive" is described in the instant specification as "an agent, separate from components joined to form a seal, coated on one or both surfaces of the components at locations joined to form the seal." (See page 15, line 30 to page 16, line 21) Given the arrangement described by the Examiner, Applicants believe the sealing strips located between articles 1 and 8 together function as an auxiliary adhesive as defined in the specification.

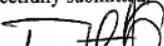
Thus, the Examiner has clearly erred in contending that Ohman anticipates the invention as described in claim 52. This rejection is therefore improper, and Applicants request that it be withdrawn.

CONCLUSION

Applicants respectfully request consideration of the above request and a favorable decision by the Panel. If there are any questions, the Panel is requested to call the undersigned at the telephone number listed below. If this request is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge our Deposit Account No. 23/2825, under Order No. H0498.70168US01 from which the undersigned is authorized to draw.

Dated: 07/06/09

Respectfully submitted,

By 

Timothy J. Oyer, Ph.D.  
Registration No.: 36628  
WOLF, GREENFIELD & SACKS, P.C.  
Federal Reserve Plaza  
600 Atlantic Avenue  
Boston, Massachusetts 02210-2206  
(617) 646-8000